```
=> d his ful; d sta que

     (FILE 'HOME' ENTERED AT 14:45:43 ON 24 FEB 2006)

     FILE 'REGISTRY' ENTERED AT 14:45:53 ON 24 FEB 2006
L1                STRUCTURE UPLOADED
L2                STRUCTURE UPLOADED
L3                STRUCTURE UPLOADED
L4                STRUCTURE UPLOADED
L5                STRUCTURE UPLOADED
L6                STRUCTURE UPLOADED
L7              1 SEA SSS SAM L2
L8             49 SEA SSS FUL L2
L9             49 SEA SUB=L8 SSS FUL L5
L10            50 SEA SSS SAM L4
L11          5342 SEA SSS FUL L4
L12          2831 SEA SUB=L11 SSS FUL L1
L13               STRUCTURE UPLOADED
L14            17 SEA SUB=L11 SSS FUL L13
                  D QUE L11
L15          2511 SEA PLU=ON  L11 NOT L12
L16          2499 SEA PLU=ON  L15 NOT L14
L17       4233291 SEA PLU=ON  SQL<=21
L18          2104 SEA PLU=ON  L17 AND L16
L19           613 SEA PLU=ON  L18 AND SQL<=10
L20            21 SEA PLU=ON  L18 AND SQL<=5

     FILE 'HCAPLUS, USPATFULL, USPAT2, TOXCENTER, CASREACT' ENTERED AT
     15:04:39 ON 24 FEB 2006
L21             8 SEA PLU=ON  L9
L22             7 DUP REM L21 (1 DUPLICATE REMOVED)
                  D IBIB L22 1-7 HITSTR
                  SET AUTOSEARCH ON PERM
L23            37 SEA PLU=ON  L20
L24            30 DUP REM L23 (7 DUPLICATES REMOVED)
L25            30 SEA PLU=ON  L24 NOT L22
L26            18 SEA PLU=ON  L25 AND (PD<20010216 OR PRD<20010216)
L27            13 SEA PLU=ON  L25 AND (PD<20000216)
L28             2 SEA PLU=ON  L27 AND TRANSPOR?
                  D IBIB HITSTR L28 1-2
                  D L28 1-2 IBIB KWIC


     FILE HOME

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:   22 FEB 2006  HIGHEST RN 874945-83-2
     DICTIONARY FILE UPDATES:  22 FEB 2006  HIGHEST RN 874945-83-2

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

       Please note that search-term pricing does apply when
       conducting SmartSELECT searches.

     ************************************************************
     *                                                          *
     * The CA roles and document type information have been removed from *
     * the IDE default display format and the ED field has been added,   *
```

* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*
****

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE HCAPLUS

FILE COVERS 1907 - 24 Feb 2006 VOL 144 ISS 10
FILE LAST UPDATED: 23 Feb 2006 (20060223/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 23 Feb 2006 (20060223/PD)
FILE LAST UPDATED: 23 Feb 2006 (20060223/ED)
HIGHEST GRANTED PATENT NUMBER: US7003800
HIGHEST APPLICATION PUBLICATION NUMBER: US2006041984
CA INDEXING IS CURRENT THROUGH 23 Feb 2006 (20060223/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 23 Feb 2006 (20060223/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 23 Feb 2006 (20060223/PD)
FILE LAST UPDATED: 23 Feb 2006 (20060223/ED)
HIGHEST GRANTED PATENT NUMBER: US2004201620
HIGHEST APPLICATION PUBLICATION NUMBER: US2006041918
CA INDEXING IS CURRENT THROUGH 23 Feb 2006 (20060223/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 23 Feb 2006 (20060223/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

FILE TOXCENTER

FILE COVERS 1907 TO 21 Feb 2006 (20060221/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TOXCENTER has been enhanced with new files segments and search fields.
See HELP CONTENT for more information.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the
MeSH 2006 vocabulary.
See http://www.nlm.nih.gov/mesh/
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html
for a description of changes.

FILE CASREACT

FILE CONTENT:1840 - 19 Feb 2006 VOL 144 ISS 8

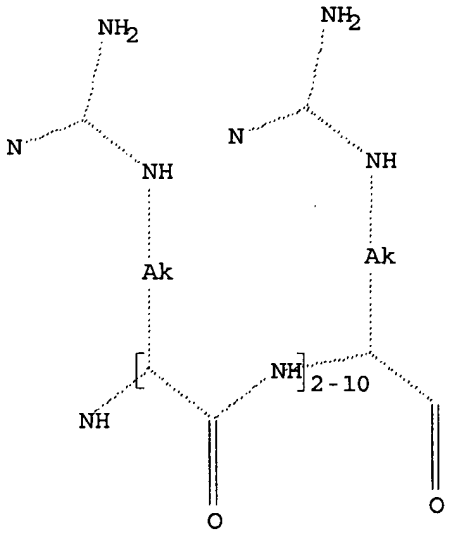
New CAS Information Use Policies, enter HELP USAGETERMS for details.

****
*
* CASREACT now has more than 10 million reactions
*
****

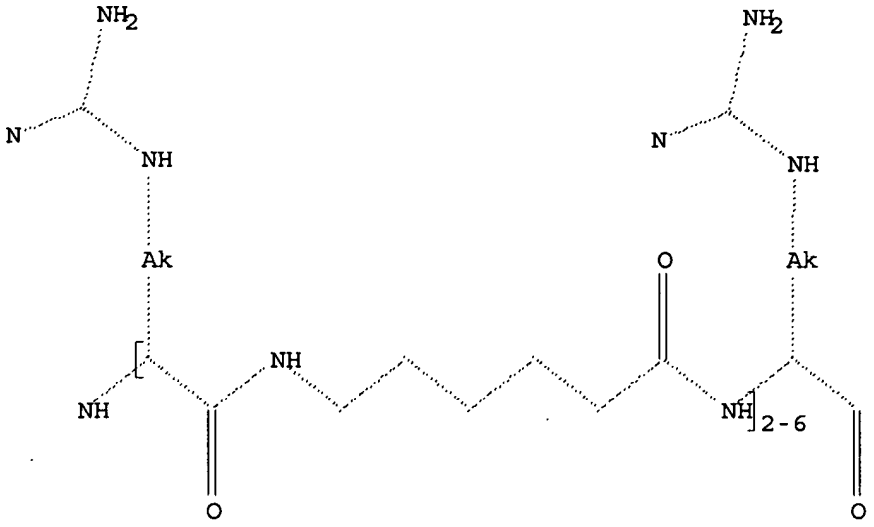
Some CASREACT records are derived from the ZIC/VINITI database (1974-1991)
provided by InfoChem, INPI data prior to 1986, and Biotransformations
database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance
identification.

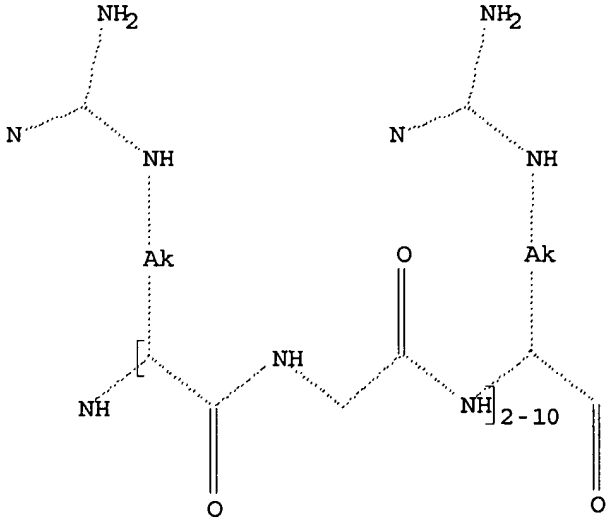
L1 STR



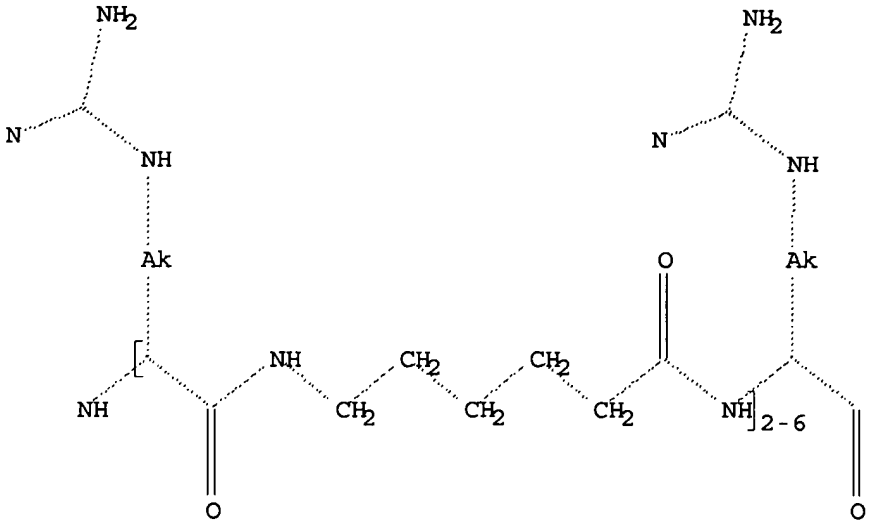
Structure attributes must be viewed using STN Express query preparation.
L2 STR



Structure attributes must be viewed using STN Express query preparation.
L4 STR

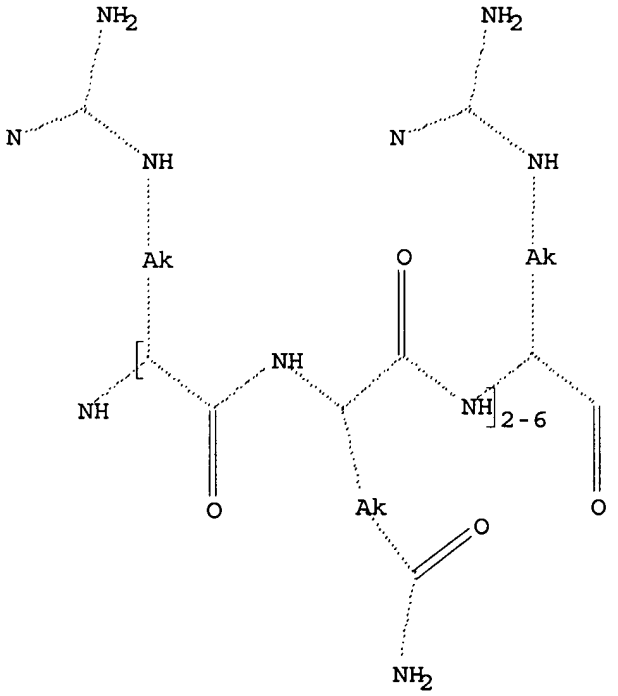


Structure attributes must be viewed using STN Express query preparation.
L5 STR



Structure attributes must be viewed using STN Express query preparation.

L8	49	SEA	FILE=REGISTRY SSS FUL L2
L9	49	SEA	FILE=REGISTRY SUB=L8 SSS FUL L5
L11	5342	SEA	FILE=REGISTRY SSS FUL L4
L12	2831	SEA	FILE=REGISTRY SUB=L11 SSS FUL L1
L13		STR	



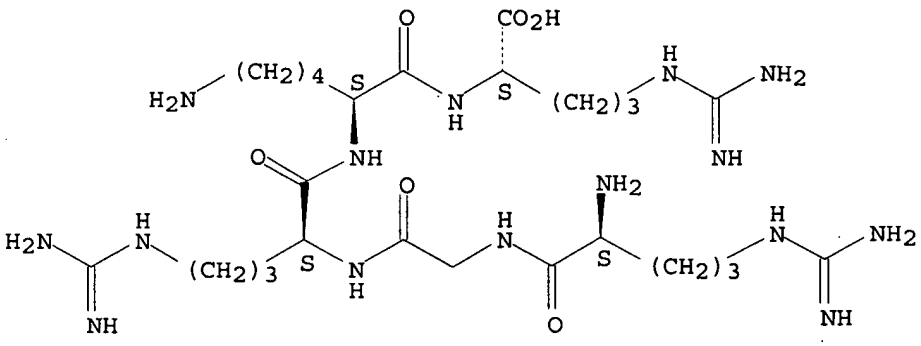
Structure attributes must be viewed using STN Express query preparation.

L14	17	SEA	FILE=REGISTRY SUB=L11 SSS FUL L13
L15	2511	SEA	FILE=REGISTRY PLU=ON L11 NOT L12
L16	2499	SEA	FILE=REGISTRY PLU=ON L15 NOT L14
L17	4233291	SEA	FILE=REGISTRY PLU=ON SQL<=21
L18	2104	SEA	FILE=REGISTRY PLU=ON L17 AND L16
L20	21	SEA	FILE=REGISTRY PLU=ON L18 AND SQL<=5

```
L21            8 SEA L9
L22            7 DUP REM L21 (1 DUPLICATE REMOVED)
L23           37 SEA L20
L24           30 DUP REM L23 (7 DUPLICATES REMOVED)
L25           30 SEA L24 NOT L22
L27           13 SEA L25 AND (PD<20000216)
L28            2 SEA L27 AND TRANSPOR?
```

L28 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:569549 HCAPLUS
DOCUMENT NUMBER: 133:203119
TITLE: Nuclear import of insulin-like growth factor-binding protein-3 and -5 is mediated by the importin β subunit
AUTHOR(S): Schedlich, Lynette J.; Le Page, Sophie L.; Firth, Sue M.; Briggs, Lyndall J.; Jans, David A.; Baxter, Robert C.
CORPORATE SOURCE: Kolling Institute of Medical Research, Royal North Shore Hospital, University of Sydney, Sydney, 2065, Australia
SOURCE: Journal of Biological Chemistry (**2000**), 275(31), 23462-23470
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **290828-81-8**
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(214-218 recombinant human IGFBP-5 nuclear targeting fragment; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)
RN 290828-81-8 HCAPLUS
CN L-Arginine, L-arginylglycyl-L-arginyl-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



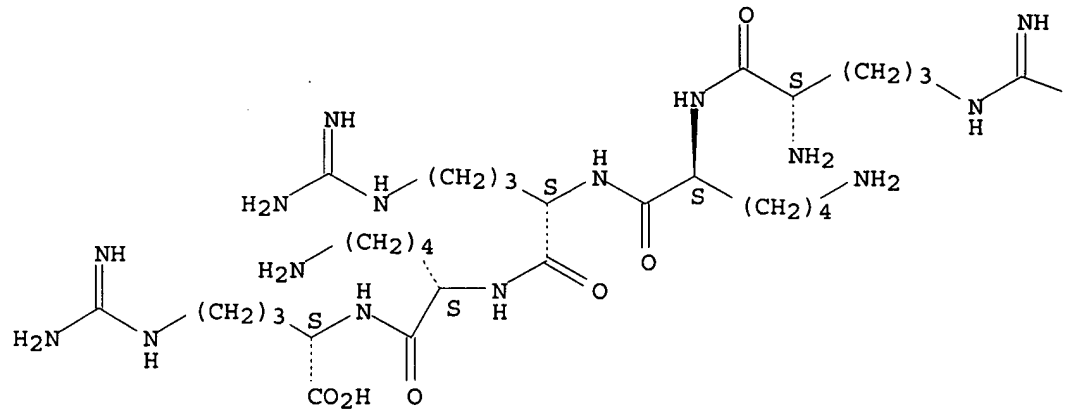
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:886699 HCAPLUS
DOCUMENT NUMBER: 124:48962
TITLE: COOH-terminal sequence motifs target the T cell protein tyrosine phosphatase to the ER and nucleus
AUTHOR(S): Lorenzen, James A.; Dadabay, Carolyn Y.; Fischer, Edmond H.
CORPORATE SOURCE: Dep. of Biochemistry, Univ. of Washington, Seattle, WA, 98195, USA
SOURCE: Journal of Cell Biology (**1995**), 131(3), 631-43
CODEN: JCLBA3; ISSN: 0021-9525
PUBLISHER: Rockefeller University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **171899-38-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(nuclear localization signal peptide; COOH-terminal sequence motifs target T cell protein tyrosine phosphatase to endoplasmic reticulum and nucleus)
RN 171899-38-0 HCAPLUS
CN L-Arginine, N2-[N2-[N2-(N2-L-arginyl-L-lysyl)-L-arginyl]-L-lysyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

NH_2

=> d his

(FILE 'HOME' ENTERED AT 14:45:43 ON 24 FEB 2006)

FILE 'REGISTRY' ENTERED AT 14:45:53 ON 24 FEB 2006

L1		STRUCTURE UPLOADED
L2		STRUCTURE UPLOADED
L3		STRUCTURE UPLOADED
L4		STRUCTURE UPLOADED
L5		STRUCTURE UPLOADED
L6		STRUCTURE UPLOADED
L7	1	S L2 SAM
L8	49	S L2 FUL
L9	49	S L5 FUL SUB=L8
L10	50	S L4
L11	5342	S L4 FUL
L12	2831	S L1 FUL SUB=L11
L13		STRUCTURE UPLOADED
L14	17	S L13 SUB=L11 FUL
L15	2511	S L11 NOT L12
L16	2499	S L15 NOT L14

```
L17     4233291 S SQL<=21
L18        2104 S L17 AND L16
L19         613 S L18 AND SQL<=10
L20          21 S L18 AND SQL<=5

     FILE 'HCAPLUS, USPATFULL, USPAT2, TOXCENTER, CASREACT' ENTERED AT
     15:04:39 ON 24 FEB 2006
L21           8 S L9
L22           7 DUP REM L21 (1 DUPLICATE REMOVED)
                SET AUTOSEARCH ON PERM
L23          37 S L20
L24          30 DUP REM L23 (7 DUPLICATES REMOVED)
L25          30 L24 NOT L22
L26          18 L25 AND (PD<20010216 OR PRD<20010216)
L27          13 L25 AND (PD<20000216)
L28           2 L27 AND TRANSPOR?

=> d l28 1-2 ibib kwic

L28  ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2000:569549  HCAPLUS
DOCUMENT NUMBER:          133:203119
TITLE:                    Nuclear import of insulin-like growth factor-binding
                          protein-3 and -5 is mediated by the importin β
                          subunit
AUTHOR(S):                Schedlich, Lynette J.; Le Page, Sophie L.; Firth, Sue
                          M.; Briggs, Lyndall J.; Jans, David A.; Baxter, Robert
                          C.
CORPORATE SOURCE:         Kolling Institute of Medical Research, Royal North
                          Shore Hospital, University of Sydney, Sydney, 2065,
                          Australia
SOURCE:                   Journal of Biological Chemistry (2000),
                          275(31), 23462-23470
                          CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER:                American Society for Biochemistry and Molecular
                          Biology
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
REFERENCE COUNT:          58    THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
SO   Journal of Biological Chemistry (2000), 275(31), 23462-23470
     CODEN: JBCHA3; ISSN: 0021-9258
AB   Although insulin-like growth factor-binding protein (IGFBP)-3 and IGFBP-5
     are known to modulate cell growth by reversibly sequestering extracellular
     insulin-like growth factors, several reports have suggested that IGFBP-3,
     and possibly also IGFBP-5, have important insulin-like growth
     factor-independent effects on cell growth.  These effects may be related
     to the putative nuclear actions of IGFBP-3 and IGFBP-5, which the authors
     have recently shown are transported to the nuclei of T47D breast
     cancer cells.  The authors now describe the mechanism for nuclear import
     of IGFBP-3 and IGFBP-5.  In digitonin-permeabilized cells, where the
     nuclear envelope remained intact, nuclear translocation of wild-type
     IGFBP-3 appears to occur by a nuclear localization sequence
     (NLS)-dependent pathway mediated principally by the importin β
     nuclear transport factor and requiring both ATP and GTP
     hydrolysis.  Under identical conditions, an NLS mutant form of IGFBP-3,
     IGFBP-3[228KGRKR → MDGEA], was unable to translocate to the
     nucleus.  In cells where both the plasma membrane and nuclear envelope
     were permeabilized, wild-type IGFBP-3, but not the mutant form,
     accumulated in the nucleus, implying that the NLS was also involved in
     mediating binding to nuclear components.  By fusing wild-type and mutant
     forms of NLS sequences (IGFBP-3 [215-232] and IGFBP-5 [201-218]) to the
     green fluorescent protein, the authors identified the critical residues of
     the NLS necessary and sufficient for nuclear accumulation.  Using a
```

Western ligand binding assay, wild-type IGFBP-3 and IGFBP-5, but not an NLS mutant form of IGFBP-3, were shown to be recognized by importin β and the α/β heterodimer but only poorly by importin α. Together these results suggest that the NLSs within the C-terminal domain of IGFBP-3 and IGFBP-5 are required for importin-β-dependent nuclear uptake and probably also accumulation through mediating binding to nuclear components.

IT Biological **transport**
(import; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)

IT Biological **transport**
(intracellular; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)

IT **290828-81-8**
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(214-218 recombinant human IGFBP-5 nuclear targeting fragment; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)

L28 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:886699 HCAPLUS
DOCUMENT NUMBER: 124:48962
TITLE: COOH-terminal sequence motifs target the T cell protein tyrosine phosphatase to the ER and nucleus
AUTHOR(S): Lorenzen, James A.; Dadabay, Carolyn Y.; Fischer, Edmond H.
CORPORATE SOURCE: Dep. of Biochemistry, Univ. of Washington, Seattle, WA, 98195, USA
SOURCE: Journal of Cell Biology (**1995**), 131(3), 631-43
CODEN: JCLBA3; ISSN: 0021-9525
PUBLISHER: Rockefeller University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

SO Journal of Cell Biology (**1995**), 131(3), 631-43
CODEN: JCLBA3; ISSN: 0021-9525

ST protein tyrosine phosphatase **transport** cell nucleus; endoplasmic reticulum protein tyrosine phosphatase **transport**

IT Biological **transport**
(translocation, COOH-terminal sequence motifs target T cell protein tyrosine phosphatase to endoplasmic reticulum and nucleus)

IT **171899-38-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(nuclear localization signal peptide; COOH-terminal sequence motifs target T cell protein tyrosine phosphatase to endoplasmic reticulum and nucleus)